

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number  
**WO 2005/031348 A1**

(51) International Patent Classification<sup>7</sup>: **G01N 33/50**

(21) International Application Number:  
**PCT/IL2004/000899**

(22) International Filing Date:  
28 September 2004 (28.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
158173 30 September 2003 (30.09.2003) IL

(71) Applicant (*for all designated States except US*): **BEN-GURION UNIVERSITY OF THE NEGEV RESEARCH AND DEVELOPMENT AUTHORITY [IL/IL]**; P.O.B. 653, 84105 BEER-SHEVA (IL).

(72) Inventor; and  
(75) Inventor/Applicant (*for US only*): **JELINEK, RAZ [IL/IL]**; 4 Brosh Street, 84965 OMER (IL).

(74) Agents: **PYERNIK RUTMAN et al.**; P.O.B. 10012, 84106 BEER-SHEVA (IL).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

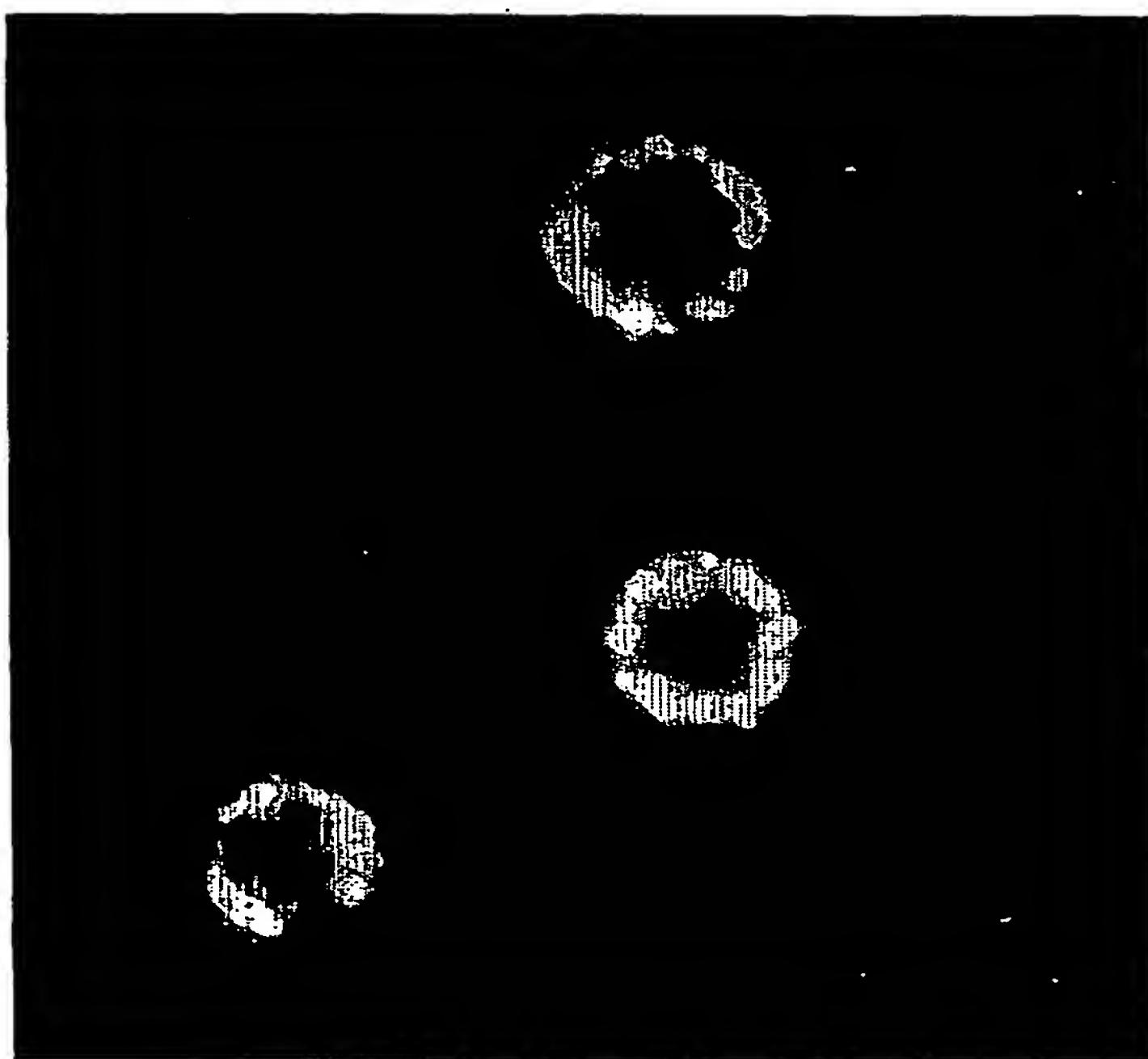
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: CELLS CONTAINING A NANOPATCH SENSOR IN THEIR MEMBRANE



(57) Abstract: The present invention provides isolated cells comprising nanopatch sensors integrated into the cell membrane thereof, wherein said sensors are provided in the form of perturbation-sensitive constructs, and wherein said perturbation-sensitive constructs respond to perturbations of the cell membrane by means of a detectable change in one or more physical or chemical properties associated with said construct.

WO 2005/031348 A1

**BEST AVAILABLE COPY**